REMARKS

Please reconsider the application in view of the following remarks. Applicant thanks the Examiner for carefully considering this application.

Disposition of Claims

Claims 1-14 are currently pending in this application. Claim 1 is independent. The remaining claims depend, directly or indirectly, from claim 1.

Rejections under 35 U.S.C. § 102

Claims 1-5 and 9-14 stand rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 5,870,474 ("Wasilewski"). This rejection is respectfully traversed.

Independent claim 1 recites a digital audiovisual transmission system that includes a multiplexer and a scrambling unit *physically separate* from the multiplexer, wherein the scrambling unit scrambles a transport packet stream *independently* of the multiplexer operations. More specifically, the discrete scrambling unit receives, via a dedicated input, an already assembled transport stream. Advantageously, the claimed invention facilitates the management of communications between each of the elements of the system through the division of functionality between separated scrambling and multiplexing parts of the system. Furthermore, because the scrambling unit is not constrained by the usual limitations of multiplexer scrambler devices (*i.e.,* devices that perform the scrambling of data by a multiplexer at the same time as the various data streams are multiplexed together to form a single transport stream), the level of complexity of the scrambling algorithm may be increased.

For anticipation under 35 U.S.C. § 102, the reference must teach every aspect of the invention either explicitly or impliedly. The Applicant respectfully asserts that Wasilewski fails to teach or suggest all the limitations of the invention recited in independent claim 1.

In particular, with reference to Figures 1 and 2 of Wasilewski, Wasilewski teaches a system in which a SABER (*i.e.,* a Service Access and Broadband Encrypter Re-mapper) 20 receives non-encrypted programs from a service provider 110 (SP) via input cards 28a, 28b. The SP 110 then removes the MPEG-2 transport packets of the programs from the network protocol of data link 40 and replace the current process IDs (PIDs) with new PIDs. Subsequently, the new PIDs are replaced by the SABER, to prevent multiple programs from multiple service providers from delivering program information in MPEG-2 transport packets with identical PIDs. The MPEG-2 transport packets are then sent over the backplane 21 to the control card 22, which multiplexes multiple MPEG-2 transport streams together when more than one input card 28 is used. The control card 22 then transfers the transport packets to the conditional access card 24. The conditional access card 24 encrypts the transport packets as required and sends them back to the control card 24. The transport packets are then multiplexed and sent over the backplane 21 to the output card 26, where they are transmitted over the data link 50 using a network protocol. (*See,* Wasilewski, col. 12, ll. 20-42 and Figure 2).

Wasilewski, however, does not disclose or suggest that the scrambling unit is physically separate from the multiplexer. In fact, in Wasilewski, the scrambling unit and multiplexer are *co-located* within the SABER (*See* Wasilewski, Figure 2, col. 12, ll. 20-42). The interdependence of the multiplexing and scrambling functions in Wasilewski is further evidenced in column 19, lines 53-61 of Wasilewski, which states:

Periodically, the CAM (conditional access manager) provides

> the conditional access card with an MSK (multi-session key) used
> to encrypt the control words of the first level of encryption. After
> the conditional access card encrypts the MPEG-2 transport packets
> using the frequently changing control words, it transfers the
> packets back to the control card via data link. The control card
> multiplexes these transport packets, along with other transport
> packets, to form an outgoing transport stream for transmission to
> an STU (set top unit).

Wasilewski clearly states that the multiplexing and scrambling functions are interrelated, and thus, dependent on one another. In fact, Wasilewski fails to offer any indication of the physical separation between the scrambling unit and the multiplexer, nor of any desire to physically separate these two functions. As mentioned above, the claimed invention specifically recites that the scrambling of the transport data is independent of the multiplexing of the transport data in order to allow for more complex scrambling algorithms to be used. Wasilewski cannot possibly allow for this type of advantage, because the scrambling unit and the multiplexer are co-located in the SABER, thereby making the scrambling and multiplexing functions *dependent*, not independent.

In view of the above, Wasilewski fails to show or suggest the invention as recited in independent claim 1. Thus, independent claim 1 is patentable over Wasilewski. Further, dependent claims 2-5 and 9-14 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Rejections under 35 U.S.C. § 103

Claims 6 and 7 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski in view of U.S. Patent No. 5,566,174 ("Sato"). This rejection is respectfully traversed.

As described above, Wasilewski fails to disclose each and every limitation of independent claim 1. Specifically, Wasilewski fails to disclose or suggest a scrambling unit physically separate from a multiplexer. Further, Sato fails to supply that which Wasilewski lacks.

In particular, Sato teaches a method for transmitting timing critical data via an asynchronous channel (*See* Sato, Abstract). Sato also discloses a system for recording and playback of MPEG information using a DVCR. Specifically, packets are processed serially through a remuxer to obtain a constant rate and delivered to and consumed by one or more target decoders. However, Sato is completely silent with respect to scrambling data (*i.e.*, encrypting data) independently of multiplexing data, where a scrambling unit is physically separate from a multiplexer. In fact, Sato does not even mention encrypting/scrambling data, and thus also does not disclose a scrambling unit.

Further, Applicant notes that there is no motivation to combine the teachings of Wasilewski and Sato. The Examiner cannot combine prior art references to render a claimed invention obvious by merely showing that all the limitations of the claimed invention can be found in the prior art references. Instead, there must a suggestion or motivation to combine the references within the prior art references themselves. In other words, regardless of whether prior art references can be combined, there must an indication within the prior art references *expressing desirability* to combine the references. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990) (emphasis added). Further, the present application *cannot be used a guide* in reconstructing elements of prior art references to render the claimed invention obvious. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) (emphasis added). In the present case, there is no expression of desirability in either Wasilewski or Sato that would cause one skilled in the art to turn to the teachings of the

other. In fact, as stated above, Sato does not even mention scrambling/encrypting data, and thus, one skilled in the art would not combine Wasilewski with Sato to achieve the claimed invention, which includes both scrambling and multiplexing.

In view of the above, it is clear that independent claim 1 is patentable over Wasilewski and Sato, whether considered separately or in combination. Further, Wasilewski and Sato are not properly combinable. Further, dependent claims 6 and 7 are patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Claim 8 stands rejected under 35 U.S.C. 103(a) as being unpatentable over Wasilewski in view of U.S. Patent No. 5,640,388 ("Woodhead"). This rejection is respectfully traversed.

As described above, Wasilewski fails to disclose each and every limitation of independent claim 1. Specifically, Wasilewski fails to disclose or suggest a scrambling unit physically separate from a multiplexer. Further, Woodhead fails to supply that which Wasilewski lacks.

In particular, Woodhead teaches a method for removing jitter and correcting timestamps in a packet stream (See Woodhead, Abstract). Specifically, Woodhead discloses receiving the packets at an intermediate site that has a local clock operates at a nominal frequency substantially equal to the nominal frequency of the transmission site clock and uses that clock as a jitter-free clock to correct the packets. The packets are stored in a buffer at the intermediate site and output from the buffer at a controlled rate to maintain a substantially constant average transit time of packets through the buffer.

Woodhead is completely silent with respect to scrambling/encrypting data, where the scrambling unit that scrambles/encrypts data is physically separate from a multiplexer that

multiplexes the data. In fact, Woodhead does not require a scrambling unit, because Woodhead does not contemplate scrambling data.

Further, Applicant notes that there is no motivation to combine the teachings of Wasilewski and Woodhead. The Examiner cannot combine prior art references to render a claimed invention obvious by merely showing that all the limitations of the claimed invention can be found in the prior art references. Instead, there must a suggestion or motivation to combine the references within the prior art references themselves. In other words, regardless of whether prior art references can be combined, there must an indication within the prior art references *expressing desirability* to combine the references. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990) (emphasis added). Further, the present application *cannot be used a guide* in reconstructing elements of prior art references to render the claimed invention obvious. *In re Vaeck*, 947 F.2d 488 (Fed. Cir. 1991) (emphasis added). In the present case, there is no expression of desirability in either Wasilewski or Woodhead that would cause one skilled in the art to turn to the teachings of the other. Again, Woodhead does not even mention scrambling data, and thus, one skilled in the art would not combine Wasilewski with Woodhead to achieve the claimed invention, which includes both scrambling and multiplexing.

In view of the above, it is clear that independent claim 1 is patentable over Wasilewski and Woodhead, whether considered separately or in combination. Moreover, Wasilewski and Woodhead are not properly combinable. Further, dependent claim 8 is patentable for at least the same reasons. Accordingly, withdrawal of this rejection is respectfully requested.

Conclusion

Applicant believes this reply is fully responsive to all outstanding issues and places this application in condition for allowance. If this belief is incorrect, or other issues arise, the Examiner is encouraged to contact the undersigned or his associates at the telephone number listed below. Please apply any charges not covered, or any credits, to Deposit Account 50-0591 (Reference Number 11345.015001).

Dated: June 21, 2005   Respectfully submitted,
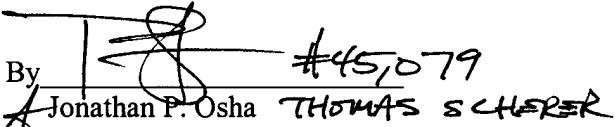
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